



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-8177; Directorate Identifier 2015-NM-129-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model BD-700-1A10 and BD-700-1A11 airplanes. This proposed AD was prompted by a determination that the existing instruction in a certain task in the aircraft maintenance manual (AMM) will not accomplish the intent of a certification maintenance requirement (CMR). This CMR task tests the pitch feel (PF) and rudder travel limiter actuator (RTLTA) back-up modules in the flight control unit (FCU) to detect dormant failures. This proposed AD would require doing an operational test of the FCU back-up modules, and repair if necessary. We are proposing this AD to detect and correct a dormant failure of both FCU back-up modules. This condition, in combination with other failures in the FCU, may result in the inability to maintain the minimum control requirements for the PF and RTLTA, which could create hazardous flight control inputs during flight.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery:
 - Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8177; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Assata Dessaline, Aerospace Engineer, Avionics and Services Branch, ANE-172, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7301; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-8177; Directorate Identifier 2015-NM-129-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2015-06R1, dated April 22, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model BD-700-1A10 and BD-700-1A11 airplanes. The MCAI states:

It was discovered that the existing instruction in the Aircraft Maintenance Manual (AMM) Task 27-61-05-710-801 will not accomplish the intent of the Certification Maintenance Requirement (CMR) task number 27-61-05-201. This CMR task was required to test the Pitch Feel (PF) and Rudder Travel Limiter Actuator (RTLA) back-up modules in the Flight Control Unit (FCU) to detect dormant failures. If not detected, a dormant failure of both FCU back-up modules, in combination with other failures in the FCU, may result in the inability to maintain the Minimum Control Requirements for the PF and RTLA, which could create hazardous flight control inputs during flight.

The original issue of this [Canadian] AD mandated the performance of an operational test of the FCU back-up modules using the proper AMM task instructions [and repair if necessary].

Revision 1 of this [Canadian] AD is to correct the model number designation in the Applicability section.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8177.

Related Service Information under 1 CFR part 51

We reviewed the following service information. This service information describes procedures for doing an operational test of the FCU back-up modules.

- Bombardier Global 5000, BD-700 Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-48, dated October 5, 2015.
- Bombardier Global 5000, GL 5000 FEATURING GLOBAL VISION FLIGHT DECK - Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-24, dated October 5, 2015.
- Bombardier Global 6000, GL 6000 Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-24, dated October 5, 2015.
- Bombardier Global Express, BD-700 Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-78, dated October 5, 2015.
- Bombardier Global Express XRS, BD-700 Aircraft Maintenance Manual – Part II, Temporary Revision No. 27-47, dated October 5, 2015.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because

we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between this Proposed AD and the MCAI or Service Information

The MCAI specifies accomplishing an operational test of the FCU back-up modules, but does not specify a corrective action if the test is failed. If any FCU fails any operational test, this proposed AD would require repair using a method approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA Design Approval Organization (DAO).

Costs of Compliance

We estimate that this proposed AD affects 76 airplanes of U.S. registry.

We also estimate that it would take about 3 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$19,380, or \$255 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this NPRM.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Bombardier, Inc.: Docket No. FAA-2016-8177; Directorate Identifier 2015-NM-129-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9002 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Reason

This AD was prompted by a determination that the existing instruction in a certain task in the aircraft maintenance manual (AMM) will not accomplish the intent of a certification maintenance requirement (CMR). This CMR task tests the pitch feel (PF) and rudder travel limiter actuator (RTLTA) back-up modules in the flight control unit (FCU) to detect dormant failures. We are issuing this AD to detect and correct a dormant failure of both FCU back-up modules. This condition, in combination with other failures in the FCU, may result in the inability to maintain the minimum control requirements for the PF and RTLTA, which could create hazardous flight control inputs during flight.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) FCU Operational Test

(1) For airplanes with an FCU that has accumulated 3,000 total flight hours or more as of the effective date of this AD: Within 15 months or 700 hours flight hours, whichever occurs first, after the effective date of this AD, do an operational test of the FCU back-up modules, in accordance with the applicable service information specified in paragraph (h) of this AD.

(2) For airplanes with an FCU that has accumulated less than 3,000 hours total flight hours as of the effective date of this AD, and on which an operational test has been accomplished as specified in AMM Task 27-61-05-710-801 prior to the applicable AMM revisions specified in paragraph (i) of this AD: Within 15 months or 700 hours flight hours, whichever occurs first, after the effective date of this AD, do an operational test of

the FCU back-up modules, in accordance with the applicable service information specified in paragraph (h) of this AD.

(3) For airplanes with an FCU that has accumulated less than 3,000 total flight hours as of the effective date of this AD, and on which an operational test has not been accomplished as specified in AMM task 27-61-05-710-801: Before the FCU accumulates 3,000 total flight hours, perform an operational test of the FCU back-up modules, in accordance with the applicable service information specified in paragraph (h) of this AD.

(h) Service Information for Accomplishing Paragraph (g) of this AD

Do the actions required by paragraph (g) of this AD in accordance with the applicable service information specified in paragraphs (h)(1) through (h)(5) of this AD.

(1) Bombardier Global 5000, BD-700 Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-48, dated October 5, 2015.

(2) Bombardier Global 5000 FEATURING GLOBAL VISION FLIGHT DECK, GL 5000 Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-24, dated October 5, 2015.

(3) Bombardier Global 6000, GL 6000 Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-24, dated October 5, 2015.

(4) Bombardier Global Express, BD-700 Aircraft Maintenance Manual - Part II, Temporary Revision No. 27-78, dated October 5, 2015.

(5) Bombardier Global Express ERS, BD0700 Airplane Maintenance Manual - Part II, Temporary Revision No. 27-47, dated October 5, 2015.

(i) AMM Revisions Referred to in Paragraph (g)(2) of this AD

The following AMM revisions are used to comply with paragraph (g)(2) of this AD.

(1) For Model BD-700-1A10 airplanes: Use the AMM revision specified in paragraph (i)(1)(i), (ii), or (iii), as applicable.

(i) Bombardier Global Express GL700 AMM - Part II, Revision 61, dated March 3, 2014.

(ii) Bombardier Global Express GL XRS AMM - Part II, Revision 39, dated March 3, 2014.

(iii) Bombardier Global Express GL 6000 AMM - Part II, Revision 9, dated March 3, 2014.

(2) For Model BD-700-1A11 airplanes: Use Bombardier Global Express GL 5000 AMM - Part II, Revision 42, dated March 3, 2014; or GL 5000 GVFD AMM - Part II, Revision 9, dated March 3, 2014; as applicable.

(j) Corrective Action

If any FCU fails any operational test required by this AD: Before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO).

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2015-06R1, dated April 22, 2015, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8177.

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on July 8, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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